

ABSTRACT OF THE DISCLOSURE

Methods are disclosed for calculating the concentration of a predetermined substance in the blood of a mammal including passing the blood over one side of a semipermeable membrane in a dialyser and passing a dialysis fluid on the other side of the semipermeable membrane in the dialyser to provide a dialysate, measuring the concentration of the predetermined substance in the dialysate, introducing a disturbance in the dialyser, calculating the effective dialysance of the dialyser based on the disturbance, and calculating the concentration of the predetermined substance in the blood based upon the effective dialysance. Apparatus is also disclosed for calculating the concentration of the predetermined substance in the blood.